

**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Clean Water Act, as amended (33 U.S.C. 1251 et seq.; the "Act"),

BHP Minerals International, Incorporated  
Western U.S. Mining Division  
550 California Street  
San Francisco, CA 94104

is authorized to discharge from a facility located at Navajo Mine, 6 miles southwest of Fruitland, San Juan County, New Mexico,

Latitude: 36° 42'-43' N

Longitude: 108° 24'-25' W

to receiving waters named Morgan Lake and the Chaco River, which both drain to Segment 2-401 of the San Juan River Basin, in accordance with effluent limitations, monitoring requirements and in the attached 14 pages of EPA Region 9 "Standard Federal NPDES Permit Conditions," dated May 10, 1990.

This permit shall become effective on \_\_\_\_\_.

This permit and the authorization to discharge shall expire at midnight, \_\_\_\_\_.

Signed this \_\_\_\_\_ day of \_\_\_\_\_.

For the Regional Administrator

Alexis Strauss, Director  
Water Division  
U.S. EPA, Region 9

**SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS AS REQUIRED UNDER 40 CFR §434**

**1. OUTFALL NOS. 001, 006-011, 013, 016-018: Mine Drainage**

During the period beginning on the effective date of this permit and lasting through date of expiration, the permittee is authorized to discharge from Outfall Numbers 001, 006-011, 013 and 016-018.

Such discharges shall be limited and monitored by the permittee as specified below. Samples shall be collected prior to mixing with other waste source stream and/or discharge to surface waters. Outfall No. 001 discharges to Morgan Lake and Outfalls Nos. 001, 006-011, 013 and 016-018 discharge to the Chaco River. Minor releases of water from the irrigation line for routine maintenance and winterization are specifically excluded from the provisions of this NPDES permit.

Effluent Parameter	Units	Monthly Average	Daily Average	Daily Maximum	Monitoring Frequency <sup>(1)</sup>	Sampling Type
Flow	MGD	--	--	--	Once/Day <sup>(2)</sup>	Calculated
TSS	mg/l	--	35	70	1/occurrence	Discrete
Iron, total	mg/l	--	3.5	7.0	1/occurrence	Discrete
pH	std. units	between 6.0 to 9.0			1/occurrence	Discrete

**NOTES:**

- (1) Samples shall be taken once during each occurrence or once every 24 hours if the duration of the occurrence is greater than 24 hours.
- (2) Based upon pumping rates.

**2. OUTFALL No. 002 - Coal Storage, Coal Preparation and Ancillary Area Runoff**

During the period beginning on the effective date of this permit and lasting through date of expiration, the permittee is authorized to discharge from Outfall No. 002.

Such discharges shall be limited and monitored by the permittee as specified below. Samples shall be collected prior to mixing with any other waste source stream and/or discharge to surface waters. Outfall No. 002 discharges to Morgan Lake. Minor releases of water from the irrigation line for routine maintenance and winterization are specifically excluded from the provisions of this

NPDES permit.

Effluent Parameter	Units	Monthly Average	Daily Average	Daily Maximum	Monitoring Frequency <sup>(1)</sup>	Sampling Type
Flow	MGD	--	--	--	Once/Day <sup>(2)</sup>	Calculated
TSS	mg/l	--	35	70	1/occurrence	Discrete
Iron, total	mg/l	--	3.5	7.0	1/occurrence	Discrete
Manganese, total	mg/l	--	2.0	4.0	1/occurrence	Discrete
pH	std units	between 6.0 to 9.0			1/occurrence	Discrete

NOTES:

- (1) Samples shall be taken once during each occurrence or once every 24 hours if the duration of the occurrence is greater than 24 hours.
- (2) Based upon pumping rates.

**SECTION B. GENERAL DISCHARGE SPECIFICATIONS**

All Waters of the Navajo Nation shall be free from pollutants in amounts or combinations that, for any duration:

2. Cause injury to, are toxic to, or otherwise adversely affect human health, public safety, or public welfare.
3. Cause injury to, are toxic to, or otherwise adversely affect the habitation, growth, or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.
4. Settle to form bottom deposits, including sediments, precipitates and organic materials, that cause injury to, are toxic to, or otherwise adversely affect the habitation, growth, or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.

5. Cause physical, chemical, or biological conditions that promote the habitation, growth or propagation of undesirable, non-indigenous species of plant or animal life in the water body.
6. Cause solids, oil, grease, foam, scum, or any other form of objectionable floating debris on the surface of the water body; may cause a film or iridescent appearance on the surface of the water body; or that may cause a deposit on a shoreline, on a bank, or on aquatic vegetation.
7. Cause objectionable odor in the area of the water body.
8. Cause objectionable taste, odor, color, or turbidity in the water body.
9. Cause objectionable taste in edible plant and animal life, including waterfowl, that reside in, on, or adjacent to the water body.

#### **SECTION C. PERMIT REOPENER**

Should any of the monitoring indicate that the discharge causes, has the reasonable potential to cause, or contributes to excursion above a water quality criteria, the permit may be reopened for the imposition of water quality based limits and/or whole effluent toxicity limits. Also, this permit may be modified, in accordance with the requirements set forth at 40 CFR Parts 122 and 124, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new Tribal water quality standards applicable to effluent toxicity.

#### **SECTION D. MONITORING AND REPORTING**

1. Reporting of Monitoring Results
  - a. Monitoring results shall be reported on Discharge Monitoring Report (DMR) forms (EPA No. 3320-1) to be supplied by the EPA Regional Administrator, to the extent that the information reported may be entered on the forms. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with the limitations and requirements of the permit.

Unless otherwise specified, discharge flows shall be summarized and reported annually unless discharges occur. In the event that discharges occur, discharge data shall be submitted no later than the 15<sup>th</sup> day of the month following the discharge event(s). Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Regional Administrator and the Navajo Nation at the following addresses:

Regional Administrator  
Environmental Protection Agency  
Region IX, Attn: WTR-7  
75 Hawthorne Street  
San Francisco, CA 94105

Navajo Nation EPA  
NPDES Program  
P.O. Box 339  
Window Rock, AZ 86515

- b. For effluent analyses, the permittee shall utilize an EPA-approved analytical method with a Method Detection Limit (MDL) that is lower than the effluent limitations (or lower than applicable water quality criteria, listed in A.A.C. Title 18, Chapter 11, Article 1, for trace substances where monitoring is required but no effluent limitations have been established.) MDL is the minimum concentration of an analyte that can be detected with 99% confidence that the analyte concentration is greater than zero, as defined by the specific laboratory method listed in 40 CFR Part 136. The procedure for determination of a laboratory MDL is in 40 CFR Part 136, Appendix B.
- c. If all published MDLs are higher than the effluent limitations (or applicable criteria concentrations), the permittee shall utilize the EPA-approved analytical method with the lowest published MDL.

## 2. Monitoring and Records

Records of monitoring information shall include:

- a. Date, exact location, and time of sampling or measurements performed, preservatives used;
- b. Individual(s) who performed the sampling or measurements;
- c. Date(s) analyses were performed;
- d. Laboratory(ies) which performed the analyses;
- e. Analytical techniques or methods used;
- f. Any comments, case narrative or summary of results produced by the laboratory. These should identify and discuss QA/QC analyses performed concurrently during sample analyses and should specify whether they met project and 40 CFR Part 136

requirements. The summary of results must include information on initial and continuing calibration, surrogate analyses, blanks, duplicates, laboratory control samples, matrix spike and matrix spike duplicate results, sample receipt condition, holding times, and preservation.

- g. Summary of data interpretation and any corrective action taken by the permittee.
- h. Effluent limitations for analytes/compounds being analyzed.

3. Twenty-Four Hour Reporting of Noncompliance

The permittee shall report any compliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances to the following persons or their offices:

CWA Compliance Office Chief  
U.S. EPA  
(415) 744-1905

The Navajo Nation  
EPA - NPDES  
(520) 871-7187

If the permittee is unsuccessful in contacting the persons above, the permittee shall report by 9 a.m. on the first business day following the noncompliance. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including dates and times, and, if the noncompliance has not been corrected, the time it is expected to continue; and steps or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

## **SECTION E. INSPECTION AND ENTRY**

The permittee shall allow representatives of the Navajo Nation to accompany the EPA Regional Administrator, or an authorized representative or in lieu of the Regional Administrator, on inspections performed under authority of Section 10: Inspection and Entry of the EPA, Region 9, "Standard Federal Permit Conditions" as attached.

## **SECTION F. DEFINITIONS**

The following definitions shall apply unless otherwise specified in this permit:

- 1. "Discrete sample" means any individual sample collected in less than 15 minutes.
- 2. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar for purposes of

sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that sampling day.

3. "Daily average" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
4. "Daily maximum" concentration means the measurement made on any single discrete sample or composite sample.
5. "Daily maximum" mass limit means the highest allowable "daily discharge" by mass during any calendar day.
6. A "composite sample" means, for flow rate measurements, the arithmetic mean of no fewer than 8 individual measurements taken at equal intervals for eight (8) hours or for the duration of discharge, whichever is shorter. A composite sample means, for than flow rate measurement, a combination of eight (8) individual portions obtained at equal time intervals for eith (8) hours or for the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling. The sampling period shall coincide with the period of maximum discharge flow.
7. A "monthly or weekly average" concentration limitation means the arithmetic mean of consecutive measurements made during a calendar monthly or weekly period, respectively. The "monthly or weekly average" concentration for fecal or total coliform bacteria means the geometric mean of measurements made during a monthly or weekly period, respectively. The geometric mean is the nth root of the product of n numbers.

8. A "monthly or weekly average" mass limitation means the total discharge by mass during a calendar monthly or weekly period, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampling is required by this permit, the monthly or weekly average value shall be determined by the summation of all the measured discharges by mass divided by the number of days during the monthly or weekly period when the measurements were made.